

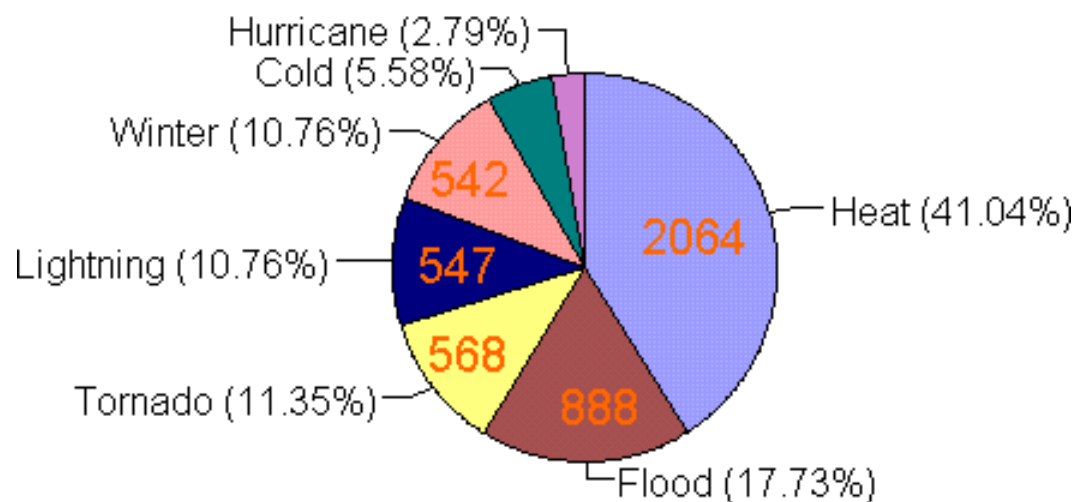


Heat Stress

Severe Weather Fatalities

“...heat is by far the number one killer of all weather events...”

**National
Severe Weather Fatalities
(1991 - 2000)**



Water Loss

- ☐ Normally, with light activity, your body loses 2 to 3 quarts of water daily.
- ☐ In a hot weather environment, you lose 6 to 8 quarts of sweat which is critical to your body's cooling.
- ☐ Your thirst mechanism is not sensitive enough to be an accurate indicator of your body's needs.
- ☐ Encourage workers to drink water-about a cup of water every 15 to 20 minutes, even if they are not thirsty. Avoid alcohol, caffeine and soft drinks.



WBGTI

The **Wet-Bulb Globe Temperature Index (WBGTI)** takes into account four variables: air temperature, humidity, radiant heat and air movement. This reading gives a more accurate measurement of heat stress than any one reading alone.

Heat related illness includes: heat rash, cramps, exhaustion and stroke. These illnesses are a real danger to people not accustomed to the stress of hot weather exercise.



Responsibilities



Branch Medical Clinic

- Develops ^(NASO) policy and oversights program
- Determines WBGT and Heat Stress Flags
- Informs MWR to raise appropriately colored flag



MWR ^(NASO and Dam Neck)

- Raise appropriate flag at gyms



NAS Oceana Departments and

tenants

- Establishes activity heat stress monitoring procedures
- Monitors heat levels (telephone / flag)
- Restricts physical activity if appropriate

Heat Stress Flag Colors

Above 89

Black- Wet Bulb Globe Thermometer (WBGT) reading of **90° F or Above**. All outdoor physical activity and strenuous exercise **will be** suspended. A 20 minute work period and a 10 minute rest cycle can be utilized.

88 - 89

Red- WBGT reading of **88 - 89° F**. Strenuous exercise will be curtailed for personnel who have been at command for less than 12 weeks (unless they transferred from command in the area).

85 - 87.9

Yellow- WBGT reading of **85 - 87.9° F**. Strenuous exercise and activity curtailed for new and “unseasoned” personnel during the first 3 weeks of heat exposure.

82-84.9

Green- WBGT reading of **82 - 84.9° F** Marginal limit of environmental heat stress.

Less than 82

Blue- WBGT reading of **82° F or less**. Caution for extreme intense physical exertion.

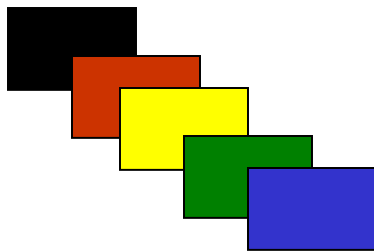
(numbers are **Wet Bulb Globe Thermometer-not temperature**)

Flags Flying / Information

Flags fly at:

- NAS Oceana

- old PRT Gym (D Street)
- MWR Athletic Office- 433-2786



- Dam Neck Annex

- at the gym
- MWR Athletics Office- 492-7208

Local weather conditions

433-2274 / 2304

Branch Medical Clinic Oceana

314-7181- WBGT Readings

Reporting Requirements

NAVFORM 6500/1, Heat/Cold Injury Report form. The form is titled "HEAT/COLD INJURY REPORT" and includes sections for "PATIENT INFORMATION", "INJURY INFORMATION", "TREATMENT INFORMATION", and "REPORTING INFORMATION". It contains various checkboxes and fields for recording details of the injury and the reporting process.

All diagnosed heat injuries must be reported to the Navy Environmental Health Center (NEHC) on NAVMED Form 6500/1, Heat/Cold Injury Report

and Supervisors' Report Of Civilian/ Military On-duty /Off-duty Injuries/ Illnesses/Deaths

Supervisors' Report Of Civilian/ Military On-duty /Off-duty Injuries/ Illnesses/Deaths form. The form is titled "SUPERVISOR'S REPORT OF CIVILIAN/MILITARY ON-DUTY/OFF-DUTY INJURIES/ILLNESSES/DEATHS" and includes sections for "1. NAME", "2. DUTY", "3. COMMAND", "4. TIME OF INCIDENT", "5. LOCATION", and "6. DESCRIPTION OF INCIDENT". It contains various checkboxes and fields for recording details of the incident and the reporting process.

Both forms available on Safety Storefront website at <http://oceanahomeport.nmci.navy.mil:8006/Safety>



Heat Stress Illnesses **Heat Rash**

Causes- Heat rash normally happens most often in hot, humid conditions, particularly wearing heavy clothing and with excessive sweating. Fair skinned individuals are more prone to develop heat rash.

Symptoms: Interferes with sleep and results in decreased deficiency and cumulative fatigue.

Treatment: Treated by keeping skin dry, use of cooled sleeping quarters, calamine lotion.



Heat Stress Illnesses **Heat Cramps**

Causes This normally happens after exercise. Most often to people who aren't used to the heat, who sweat a lot or don't drink enough fluids.

Symptoms: Severe pain and cramps in legs and abdomen, fainting or dizziness, weakness, profuse sweating and headaches.

Treatment: Increase fluid intake, increase salt intake, rest and move to a cool place.



Heat Stress Illnesses **Heat Exhaustion**

Causes This is caused by the loss of body fluids and important salts due to overexposure to high temperatures and humidity. Usually you are exposed to heat for a prolonged amount of time, such as standing in formation, and you become dehydrated.

Symptoms: Headache, nausea, fatigue, dizziness, skin is cool and pale, pupils become dilated. Victim is usually conscious but may faint, has a core temperature of over 102.

Treatment: Get to the shade, cool off, increase fluids, cold wet towels or ice, fan, elevate legs above heart, loosen clothing, don't give any liquids containing alcohol or caffeine, may need IV. If condition worsens seek medical attention immediately. If left untreated Heat Exhaustion can lead to **HEATSTROKE**.

Heat Stress Illnesses **Heat Stroke**



Causes- Heat stroke is a medical emergency and a life threatening condition. It is caused by the failure of the heat-regulating mechanisms of the body, due to high heat and humidity.

Symptoms: Headache, nausea, dizziness, skin is red, dry and very hot (sweating has ceased). Pulse is strong and rapid, small pupils, high fever 105. May be disorientated, lose consciousness, possible convulsions.

Treatment: Remove to cooler location, loosen clothing, immerse in cool water, wrap in wet sheets, cold compresses to the head, neck and groin. **SEEK MEDICAL ATTENTION IMMEDIATELY. DO NOT** give medication to lower fever, **DO NOT** use an alcohol rub.

Warning Signs

Every year people pass out and some even die during exercise from heat stroke. But you do get plenty of warning.

First your muscles are affected, as your temperature rises they feel like a hot poker is pressing against them.

As your temperature rises further, the air you breathe feels like it is coming from a furnace and no matter how hard you try, you can't get enough air.... STOP EXERCISING. Take a break and drink fluids.

If you continue, your body temperature will rise further and affect your brain.

Your head will start to hurt, you will hear ringing in your ears, you will feel dizzy and may have difficulty seeing, and the next step is unconscious on the ground.

**SO BE SMART WHEN YOU EXERCISE-
know your limits and drink plenty of fluids.**

How to Protect Workers

- ☐ Learn the signs and symptoms of heat-induced illnesses and what to do to help the worker**
- ☐ Train the workforce about heat-induced illnesses**
- ☐ Perform the heaviest work in the coolest part of the day**

How to Protect Workers (con't)

- ☐ **Slowly buildup tolerance to the heat and activity (about 2-3 weeks)**
- ☐ **Use the buddy system**
- ☐ **Drink plenty of cool water (one small cup every 15-20 minutes)**

How to Protect Workers (con't)

- ☐ Wear light loose-fitting, breathable clothing (like cotton)**
- ☐ Take breaks in cool shaded areas**
- ☐ Avoid eating large meals before working in hot environments**
- ☐ Avoid caffeine and alcohol(these beverages make the body lose water and increase your risk for heat illnesses)**

Final Note

- ❑ **One Final Note:** Heat stroke can affect your children as well. With toddlers/babies heat stroke can occur quickly, during long rides in a closed vehicle or being dressed too warmly. Older children are also susceptible.
- ❑ Follow the same procedures as with an adult, cool them off, sponge them down, bring their temperature down as quickly as possible but **DO NOT** use TYLENOL. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

Contact the Safety Office

Oceana

Bldg 230

-

- 433-2692

Dam Neck - Bldg 585

- 492-

6630

safety@nasoceana.navy.mil

<http://oceanahomeport.nmci.navy.mil:8006/Safety>